splendid designs and applications of these have been responsible for their wide use elsewhere.

Guinier's work should be known to every student of X-ray analysis, whether his interests are in the direction of 'technology' (which word the author elevates to a high plane) or in complete structure determination. Its wide use in classrooms can certainly be advised.

Although workers and students alike should be familiar with this publication, this statement is not meant to imply that the book is perfect. It must be noted that this is 'X-ray technology' of 1945, not 1952. Most of what Guinier wrote in 1945 is of course quite correct and useful. There are a few statements deserving of criticism, and there are omissions of important subjects, which detract somewhat from the general value of the work. For example, the statement is made on p. 25: 'The ionization chamber is the most suitable instrument for precise measurements of intensities of X-ray beams.' Geiger-counter methods had certainly shown their superiority well before that statement was first published; and the remark is contradicted, quite properly, on p. 26. Methods for film photometering could receive more attention. Emission and fluorescence analyses are not considered. There is much that could have been added, after 1950, to the discussions of high-intensity X-ray tube design (in which field Guinier himself is pre-eminent) or of other aspects of diffraction instrumentation, and particularly that for single-crystal observations.

The bibliography of 'general treatises' in the Introduction does not include some prime general references, and does not refer to works of lesser significance. What bibliographer can justify omission of references to Ewald's beautiful exposition of X-ray diffraction in the *Handbuch der Physik*, or the treatises of Buerger, Bijvoet *et al.*, or Zachariasen, or such reviews of crystal chemistry as those of Wyckoff, Wells, etc.?

The examples of commercially-available X-ray diffraction equipment which are presented in several footnotes and plates are badly chosen, if the purpose of each choice is to illustrate representative and/or superior modern instruments. The several translator's footnotes are particularly distasteful in this respect, and one has the suspicion that the author himself is responsible for the latter only in not insisting that they be removed from the page-proofs. In this connection one wonders why the author did not include illustrations of the very fine X-ray source and cameras which he himself designed for commercial production. The automatically-scanning Geiger-counter instruments of American design and manufacture have done more to modify the field of powder analysis than any other single development of recent years; and yet the beautiful Norelco spectrometer is mentioned only in a one-line footnote on p. 26.

Finally, one remark on the otherwise excellent foreword by Prof. Lonsdale. One could not justify the comment about X-ray diffraction, either in 1945 or in 1952, that 'it is still difficult for a thorough training in the subject to be obtained except in a few places, either in Great Britain or the U.S.A.'. One has merely to glance at the list of members of the Executive Committee and Commissions of the International Union of Crystallography to recognize how incorrect this statement is.

These criticisms notwithstanding, the new publication is very welcome indeed, for it will be very useful to anyone studying or engaged in diffraction methods and their applications.

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Books Received

The undermentioned works have been received by the Editors. Mention here does not preclude review at a later date.

Technica del Análisis Cristaloquímico. By J. L. AMORÓS. Pp. 129, with 34 figs. Madrid: Consejo Superior de Investigaciones Científicas. 1952. Price 35 ptas.

Data for X-ray Analysis. Volume I. Charts for Solution of Bragg's Equation. By W. PARRISH and B. W. IRWIN. Pp. 108. Eindhoven: Philips. 1953. Price $ 2.

Data for X-ray Analysis. Volume II. Tables for Computing the Lattice Constant of Cubic Crystals. By W. PARRISH, M. G. EKSTEIN and B. W. IRWIN. Pp. 90. Eindhoven: Philips. 1953. Price $ 2.

Reports on Progress in Physics. Edited by A. C. STICKLAND. Pp. 407, with many figs. and plates. London: Physical Society. 1953. Price 50s.